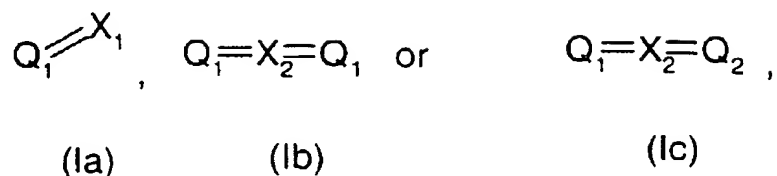


WHAT IS CLAIMED IS:

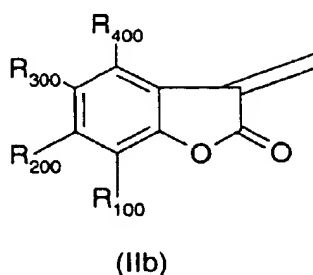
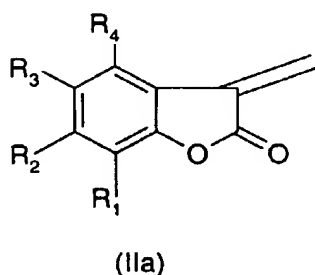
1. A compound of the formulae (Ia), (Ib) or (Ic)



in which

Q_1 is a benzofuran-2-one of the formula (IIa), and

Q_2 is a benzofuran-2-one of the formula (IIb)

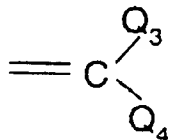


in which

R_1 , R_2 , R_3 , R_4 , R_{100} , R_{200} , R_{300} or R_{400} independently of one another are hydrogen, halogen, cyano, ether, nitro, amine, amide, imine, urethane, ester, acid radical and also its salt form, $\text{C}_1\text{-C}_{24}$ alkyl, $\text{C}_1\text{-C}_{24}$ alkoxy, $\text{C}_1\text{-C}_{24}$ alkylthio, $\text{C}_5\text{-C}_{12}$ cycloalkyl, $\text{C}_5\text{-C}_{12}$ cycloalkoxy, $\text{C}_5\text{-C}_{12}$ cycloalkylthio, $\text{C}_2\text{-C}_{24}$ alkenyl, $\text{C}_6\text{-C}_{24}$ aryl, $\text{C}_6\text{-C}_{25}$ aralkyl, $\text{C}_6\text{-C}_{24}$ aryloxy, -thio or $\text{A}_5\text{-A}_{18}$ heteroaryl, $\text{A}_5\text{-A}_{18}$ heteroaryloxy, -thio, or

R_1 and R_2 , R_2 and R_3 , R_3 and R_4 or R_{100} and R_{200} , or R_{200} and R_{300} , R_{300} and R_{400} , independently of one another but in each case in unison are divalent radicals, such as 1,3-butadien-1,4-ylene or $-\text{CH}=\text{CH}-\text{NH}-$, which produce a fused-on additional 5- or 6-membered ring, and

X₁ is a hydrazone or imine radical, with the proviso that, if R₁, R₂, R₃ or R₄ are hydrogen and/or methyl, the hydrazone radical is excluded, or, if R₁, R₂, R₃ or R₄ are hydrogen, the phenylimine and also 4-dimethylamine phenylimine radical is excluded, or



is a methylene radical

in which

Q₃ and Q₄ independently of one another are C₆-C₂₄aryl, with the proviso that Q₃ and Q₄ are not phenyl, if R₁, R₂, R₃ or R₄ are hydrogen, or

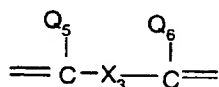
independently of one another are hydrogen, or C₆-C₂₄aryl-substituted primary or secondary amine or C₆-C₂₄aryl, with the proviso that R₃ is not hydrogen, methoxy or hydroxyl, or

independently of one another are unsubstituted or substituted (C₆-C₂₄aryl)oxy and hydrogen, C₁-C₂₄alkyl, C₁-C₂₄alkoxy, C₁-C₂₄alkylthio radical, C₅-C₁₂cycloalkyl, C₅-C₁₂cycloalkoxy, C₅-C₁₂cycloalkylthio radical, C₂-C₂₄alkenyl, C₆-C₂₄aryl, C₆-C₂₄aryloxy, -thio or A₅-A₁₈heteroaryl, -thio, with the proviso that Q₃ and Q₄ are not methyl and -OCO-4-(1-chlorophenylene),

or

Q₃ and Q₄ together are a lactam, barbituric acid or isoindoline radical, and

X₂ is

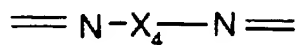


in which

X₃ is a bridge to a further benzofuran-2-one (IIa) and/or (IIb), in which the bridge is a A₅-A₁₈heteroarylene, or 1,2- or 1,3-phenylene, substituted 1,4-phenylene, or polyether, polyimine, polyamine radical, or bi(C₆-C₂₄)arylene or bi(A₅-A₁₈)heteroarylene, which are connected to one another directly or via -C-, -N-, -O-, or a (-N=N-) unit, and

Q_5 and Q_6 independently of one another are C_6-C_{24} aryl, $(C_6-C_{24}aryl)oxy$ and hydrogen, $C_1-C_{24}alkyl$, $C_1-C_{24}alkoxy$, $C_1-C_{24}alkylthio$ radical, $C_5-C_{12}cycloalkyl$, $C_5-C_{12}cycloalkoxy$, $C_5-C_{12}cycloalkylthio$ radical, $C_2-C_{24}alkenyl$, $C_6-C_{24}aryl$, $C_6-C_{24}aryloxy$, -thio or $A_5-A_{18}heteroaryl$, -thio,

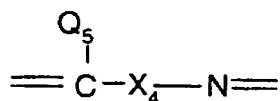
or X_2 is



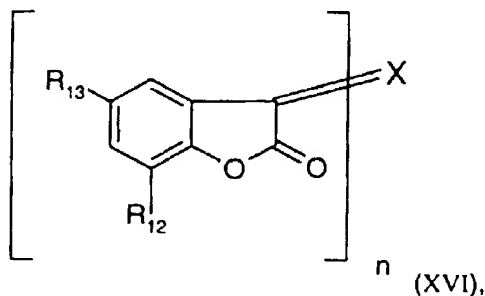
in which

X_4 is a bridge to a further benzofuran-2-one (IIa) and/or (IIb), in which the bridge is $C_6-C_{24}arylene$, $A_5-A_{18}heteroarylene$, or polymethylidene, polyether, polyimines, polyamines, or bi(C_5-C_{24})arylene or bi(A_5-A_{18})heteroarylene, which are connected to one another directly or via -C-, -N-, -O- or a (-N=N-) unit,

or X_2 is



2. A compound of the formula (XVI) according to claim 1,



in which

n is 1 or 2, and

if n is 1

X is X₁ of formula (Ia) according to claim 1, and

if n is 2

X is X₂ of formula (Ib) or (Ic) according to claim 1 and

R₁₂ and R₁₃ independently of one another are hydrogen, halogen, NO₂, R₁₄, (C₁-C₁₂alkyl)-COOR₅, OR₁₄, SR₁₄, OC₉-C₁₈alkyl or SC₉-C₁₈alkyl, in which

R₁₄ is C₁-C₁₂alkyl which is unsubstituted or substituted one or more times by oxo, cyano or COO⁻X₅⁺, and which may be uninterrupted or interrupted one or more times by O, or R₁₄ is C₇-C₁₈aralkyl or C₆-C₁₂aryl which is unsubstituted or substituted one or more times by halogen, nitrogen, cyano, OR₁₆, NR₁₆R₁₇, CONR₁₆R₁₇, NR₁₈COR₁₆ or NR₁₈COOR₁₆,

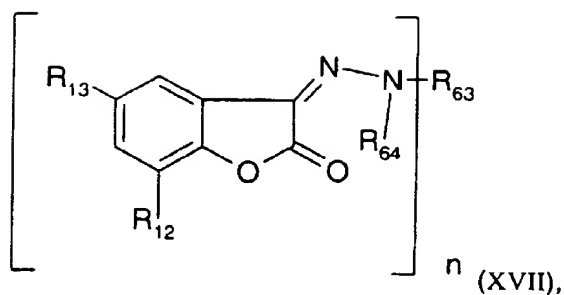
X₅⁺ is a cation Na⁺, K⁺, Mg⁺⁺_½, Ca⁺⁺_½, Zn⁺⁺_½, Al⁺⁺⁺_{1/3}, or [NR₁₆R₁₇R₁₈R₁₉]⁺, and

R₁₆ and R₁₇ independently of one another are hydrogen, C₆-C₁₂aryl, C₇-C₁₀aralkyl, or C₁-C₈alkyl which is unsubstituted or substituted one or more times by halogen, hydroxyl or C₁-C₄alkoxy, or

R₁₆ and R₁₇, together with the conjoint N, are pyrrolidine, piperidine, piperazine or morpholine, each of which is unsubstituted or substituted one or more times by C₁-C₄alkyl,

and R₁₈ and R₁₉ independently of one another are hydrogen, C₁-C₈alkyl, C₆-C₁₀aryl or C₆-C₁₂aralkyl.

3. A compound of the formula (XVII)



in which

R_{12} and R_{13} possess the same definition as in claim 2, and

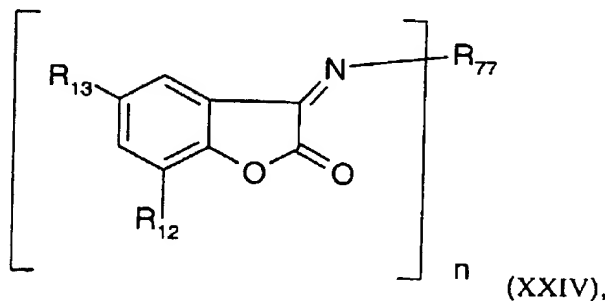
if n is 1

R_{64} independently of R_{63} possesses the same definition as R_{63} and additionally is hydrogen, and

R_{63} is substituted or unsubstituted C_1 - C_{24} alkyl, C_5 - C_{12} cycloalkyl, C_2 - C_{24} alkenyl, C_6 - C_{24} aryl, C_7 - C_{25} aralkyl, or A_5 - A_{18} heteroaryl, with the proviso that in formula (XVII) R_{12} or R_{13} are not hydrogen and/or methyl,

or

a compound of the formula (XXIV)



in which

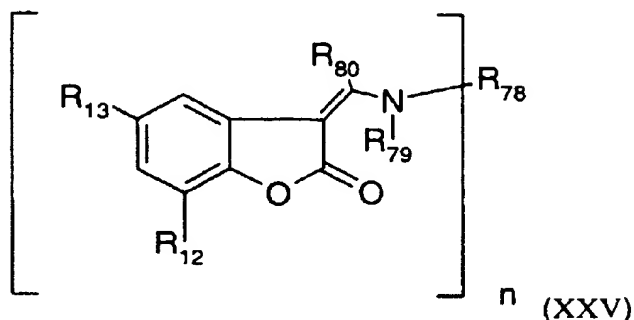
R_{77} possesses the same definition as R_{63} , and

if n is 1

with the proviso that in formula (XXIV), if R_{12} or R_{13} are hydrogen, the unsubstituted phenylimine and also 4-dimethylamine-phenylimine radical is excluded,

or

a compound of the formula (XXV)



in which

if n is 1

R_{78} and R_{79} independently of one another possess the same definition and are hydrogen, or independently of one another are C_6-C_{24} aryl-substituted primary or secondary amine or C_6-C_{24} aryl, with the proviso that R_{13} is not hydrogen, methoxy or hydroxyl, and

if n is 2 possess independently of one another the same definition as R_{63} , and

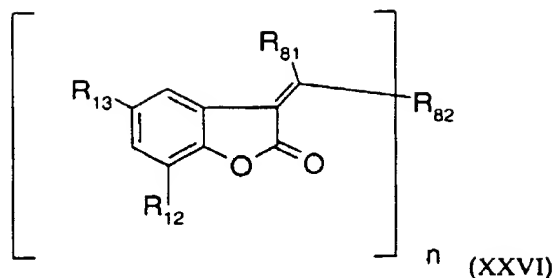
R_{80} is hydrogen or $-NR_{89}R_{90}$, in which

R_{89} and R_{90} independently of one another are substituted or unsubstituted C_1-C_{24} alkyl, C_1-C_{24} alkoxy, C_1-C_{24} alkylthio, C_5-C_{12} cycloalkoxy, C_5-C_{12} cycloalkylthio, C_6-C_{24} aryloxy, -thio or A_5-A_{18} heteroaryloxy, -thio, C_5-C_{12} cycloalkyl, C_2-C_{24} alkenyl, C_6-C_{24} aryl, C_7-C_{25} aralkyl, or A_5-A_{18} heteroaryl,

with the proviso that R_{13} is not hydrogen, methoxy or hydroxyl, or

a compound of the formula (XXVI)

formula (XXVI)

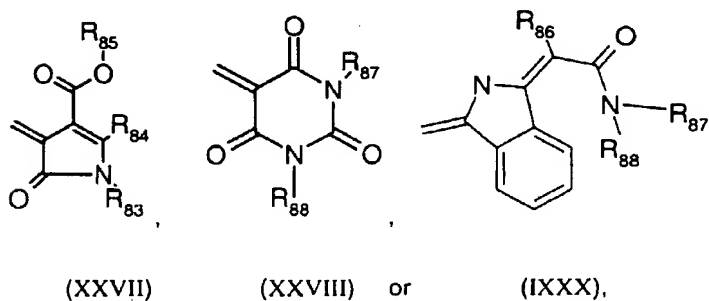


in which

if n is 1

R_{81} and R_{82} are C_6 - C_{24} aryl, if R_1 , R_2 , R_3 or R_4 are not hydrogen, or independently of one another are unsubstituted or substituted (C_6 - C_{24} aryl)oxy and hydrogen, C_1 - C_{24} alkyl, C_1 - C_{24} alkoxy, C_1 - C_{24} alkylthio radical, C_5 - C_{12} cycloalkyl, C_5 - C_{12} cycloalkoxy, C_5 - C_{12} cycloalkylthio radical, C_2 - C_{24} alkenyl, C_6 - C_{24} aryl, C_6 - C_{24} aryloxy, -thio or A_5 - A_{18} heteroaryl, -thio, or

R_{81} and R_{82} together are a lactam, barbituric acid or isoindoline radical of the formulae (XXVII), (XXVIII) or (IXXX)



in which

R_{83} , R_{85} , R_{87} and R_{88} independently of one another are substituted or unsubstituted C_1 - C_{24} alkyl, C_5 - C_{12} cycloalkyl, C_2 - C_{24} alkenyl, C_6 - C_{24} aryl, C_6 - C_{25} aralkyl, or A_5 - A_{18} heteroaryl, and

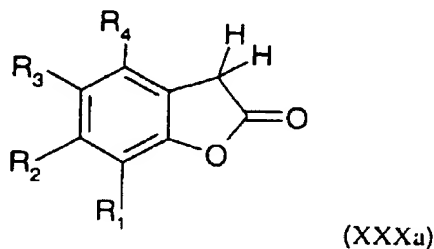
R_{86} is hydrogen, C_1 - C_{24} alkyl, C_1 - C_{24} alkoxy, C_1 - C_{24} alkylthio, C_5 - C_{12} cycloalkyl, C_5 - C_{12} cycloalkoxy, C_5 - C_{12} cycloalkylthio, C_2 - C_{24} alkenyl, C_5 - C_{24} aryl or C_7 - C_{25} aralkyl, and

if n is 2

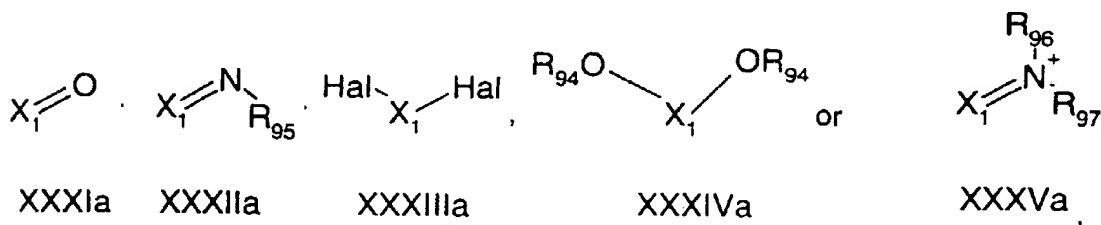
R_{82} is a bridge to a further benzofuran-2-one of the formula (XXVI), in which the bridge is (A_5-A_{18}) heteroarylene, or 1,2- or 1,3-phenylene, substituted 1,4-phenylene, or polyether, polyimine, polyamine, or $bi(C_6-C_{24})$ arylene or $bi(A_5-A_{18})$ heteroarylene, which are connected to one another directly or via $-C-$, $-N-$, $-O-$, or a $(-N=N-)$ unit,

with the proviso that R_{81} and R_{82} are not methyl and $-OCO-4-(1\text{-chlorophenylene})$, and, if R_{12} or R_{13} are hydrogen, R_{81} and R_{82} are not phenyl.

4. A process for preparing the benzofuran-2-ones (Ia) according to claim 1, which comprises reacting benzofuran-2-one (XXXa)



with a compound of the formulae (XXXIa), (XXXIIa), (XXXIIIa), (XXXIVa) or (XXXVa)



in which

Hal is halogen, and

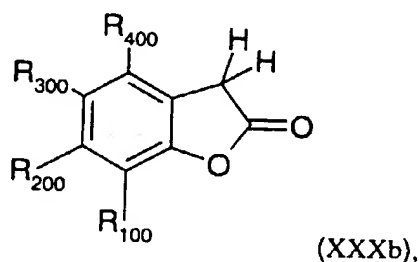
R_{94} is substituted or unsubstituted C_1 - C_{24} alkyl, C_1 - C_{24} alkoxy, C_5 - C_{12} cycloalkyl, C_2 - C_{24} alkenyl, C_6 - C_{24} aryl, C_5 - C_{24} aryloxy, C_7 - C_{25} aralkyl or A_5-A_{18} heteroaryl, and with

particular preference is C₆-C₁₂aryl, C₆-C₁₂aralkyl or A₅-A₈heteroaryl, A₅-A₁₈heteroaryloxy or dependently on the other radicals is hydrogen and

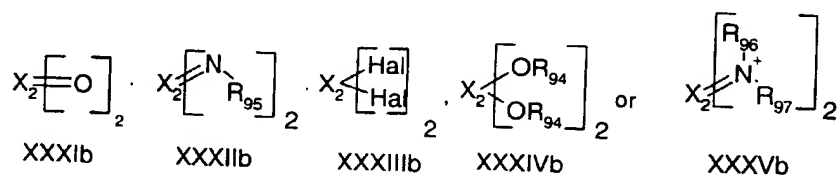
R₉₅ is C₆-C₁₂aryl,

R₉₆ and R₉₇ independently of one another are C₆-C₁₂aryl or are C₁-C₅acyl, C₆-C₁₂aralkyl, C₁-C₄alkyl.

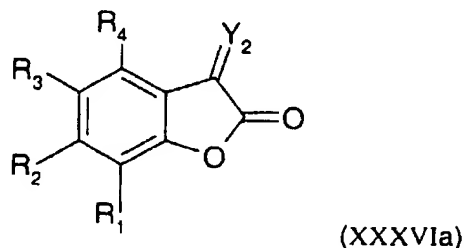
5. A process for preparing the benzofuran-2-ones (Ib) or (Ic) according to claim 1, which comprises reacting benzofuran-2-one (XXXa), or (XXXa) and a compound of formula (XXXb)



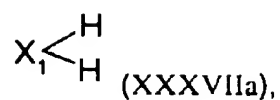
with a compound of formulae (XXXIb), (XXXIIb), (XXXIIIb), (XXXIVb) or (XXXVb)



6. A process for preparing the benzofuran-2-ones (Ia) according to claim 1, which comprises reacting 3-oxobenzofuran-2-one (XXXVIa)



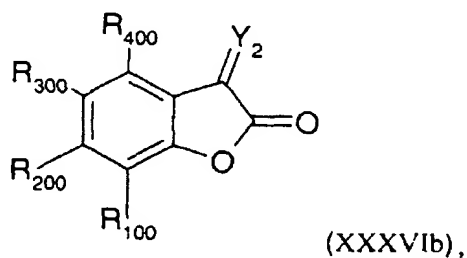
with a compound of the formula (XXXVIIa)



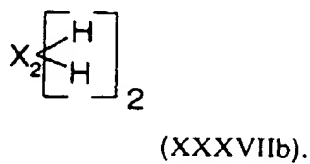
in which

Y_2 is O, NR_{95} or $\text{N}^+(\text{R}_{96}\text{R}_{97})$, CCl_2 or NO.

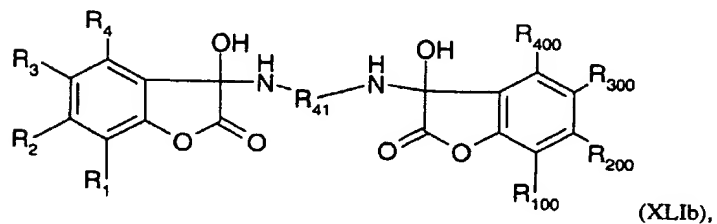
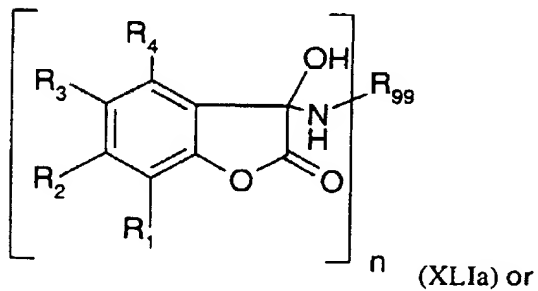
7. A process for preparing the benzofuran-2-ones (Ib) or (Ic) according to claim 1, which comprises reacting 3-oxobenzofuran-2-one (XXXVIa), or (XXXVIa) and a compound of the formula (XXXVIb)



with a compound of the formula (XXXVIIb)



8. An amino-hydroxy compound of the formula (XLIa) or (XLIb)



in which

n is 1 or 2, and

if n is 1

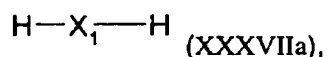
R₉₉ is hydrogen, C₁-C₂₄alkyl, C₅-C₁₂cycloalkyl, C₂-C₂₄alkenyl, C₆-C₂₄aryl, C₇-C₂₅aralkyl, or A₅-A₁₈heteroaryl, and

if n is 2

R₉₉ is C₆-C₂₄arylene, A₅-A₁₈heteroarylene, C₅-C₁₂cycloalkylene or bi(C₆-C₂₄)arylene, bi(A₅-A₁₈)heteroarylene, in which the bi compounds are connected to one another by a direct bond or by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR₄₃R₄₄-, -CO-, -COO-, -OCO-, -NR₄₃CO-, -CONR₄₃-, -O-, -S-, -SO-, -SO₂- or -NR₄₄- or are C₂-C₂₄alkenylene which may be interrupted one or more times by -CH=N-, -N=N-, -CR₄₃R₄₄-, -CO-, -COO-, -OCO-, -NR₄₃CO-, -CONR₄₃-, -O-, -S-, -SO-, -SO₂- or -NR₄₄- units, and

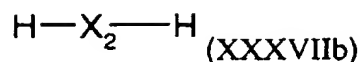
R₄₁ is C₆-C₂₄arylene, A₅-A₁₈heteroarylene, C₅-C₁₂cycloalkylene or bi(C₆-C₂₄)arylene, bi(A₅-A₁₈)heteroarylene, in which the bi compounds are connected to one another by a direct bond or by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR₄₃R₄₄-, -CO-, -COO-, -OCO-, -NR₄₃CO-, -CONR₄₃-, -O-, -S-, -SO-, -SO₂- or -NR₄₄- or are C₂-C₂₄alkenylene which may be interrupted one or more times by -CH=N-, -N=N-, -CR₄₃R₄₄-, -CO-, -COO-, -OCO-, -NR₄₃CO-, -CONR₄₃-, -O-, -S-, -SO-, -SO₂- or -NR₄₄- units, or is a direct bond.

9. A process for preparing amine-hydroxy compounds of the formulae (XLla) or (XLlb) according to claim 8, which comprises reacting 3-oxo-benzofuran-2-one (XXXVIa) according to claim 6 with a compound of the formula (XXXVIIa)

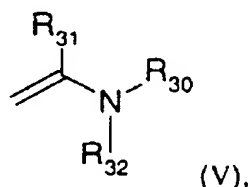


or reacting

3-oxobenzofuran-2-one (XXXVIa), or (XXXVIa) and (XXXVIb) of claim 7, with a compound of the formula (XXXVIIb)



10. A process for preparing benzofuran-2-ones (Ia), (Ib) or (Ic) according to claim 1, in which X_1 is of the formula (V)



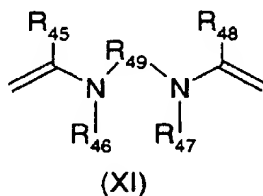
in which

R_{31} is hydrogen or $-\text{NR}_{89}\text{R}_{90}$, in which

R_{89} and R_{90} independently of one another possess the same definition as R_{38} and R_{40} , and are $\text{C}_1\text{-C}_{24}$ alkoxy, $\text{C}_1\text{-C}_{24}$ alkylthio, $\text{C}_5\text{-C}_{12}$ cycloalkoxy, $\text{C}_5\text{-C}_{12}$ cycloalkylthio, $\text{C}_5\text{-C}_{24}$ aryloxy, -thio or $\text{A}_5\text{-A}_{18}$ heteroaryloxy, -thio, and

R_{30} and R_{32} are hydrogen, or independently of one another are $\text{C}_6\text{-C}_{24}$ aryl-substituted secondary or tertiary amine or $\text{C}_6\text{-C}_{24}$ aryl, with the proviso that R_3 is not hydrogen, methoxy or hydroxyl,

and where X_2 is of the formula (XI)



in which

R_{46} and R_{47} independently of one another are substituted or unsubstituted $\text{C}_1\text{-C}_{24}$ alkyl, $\text{C}_5\text{-C}_{12}$ cycloalkyl, $\text{C}_2\text{-C}_{24}$ alkenyl, $\text{C}_6\text{-C}_{24}$ aryl, $\text{C}_6\text{-C}_{25}$ aralkyl, or $\text{A}_5\text{-A}_{18}$ heteroaryl, and

R₄₅ and R₄₈ independently of one another are hydrogen, C₁-C₂₄alkyl, C₁-C₂₄alkoxy, C₁-C₂₄alkylthio, C₅-C₁₂cycloalkyl, C₅-C₁₂cycloalkoxy, C₅-C₁₂cycloalkylthio, C₂-C₂₄alkenyl, C₅-C₂₄aryl, C₇-C₂₅aralkyl, C₅-C₂₄aryloxy, -thio or A₅-A₁₈heteroaryl, A₅-A₁₈heteroaryloxy, -thio, and

R₄₉ is C₆-C₂₄aryl, A₅-A₁₈heteroaryl, C₅-C₁₂cycloalkyl or bi(C₆-C₂₄)aryl, bi(A₅-A₁₈)heteroaryl, in which the bi compounds are connected to one another by a direct bond or by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR₄₃R₄₄-, -CO-, -COO-, -OCO-, -NR₄₃CO-, -CONR₄₃-, -O-, -S-, -SO-, -SO₂- or -NR₄₄-, or are C₂-C₂₄alkenyl, which may be interrupted one or more times by -CH=N-, -N=N-, -CR₄₃R₄₄-, -CO-, -COO-, -OCO-, -NR₄₃CO-, -CONR₄₃-, -O-, -S-, -SO-, -SO₂- or -NR₄₄- units,

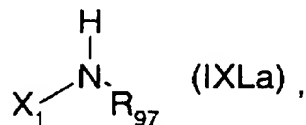
by formylation and subsequent reaction with an amine, which comprises reacting benzofuran-2-one (XXXa) of claim 4 with a formylating reagent of the formula (XXXVIII)



in which

R₃₅ and R₃₆ independently of one another are substituted or unsubstituted C₁-C₂₄alkyl, C₅-C₁₂cycloalkyl, C₂-C₂₄alkenyl, C₆-C₂₄aryl, C₇-C₂₅aralkyl or A₅-A₁₈heteroaryl,

and a compound of the formula (IXLa)



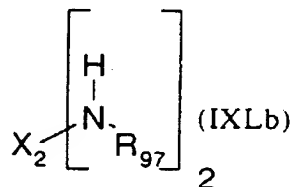
in which

R₉₇ is hydrogen or is C₆-C₂₄aryl-substituted secondary or tertiary amine or C₆-C₂₄aryl, with the proviso that R₉₇ is not unsubstituted phenyl except when R₁₂ and R₁₃ are tert-butyl,

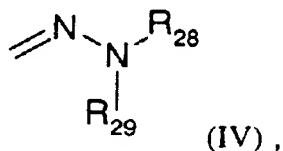
or reacting

benzofuran-2-one (XXXa), or (XXXa) and (XXXb) of claim 5, with a formylating reagent of the formula (XXXVIII)

and a compound of the formula (IXLb)



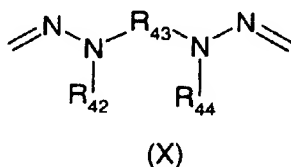
11. A process for preparing the benzofuran-2-ones (Ia), (Ib) or (Ic) according to claim 1, in which X_1 is a compound of the formula (IV)



in which

R_{28} and R_{29} independently of one another are substituted or unsubstituted C_1 - C_{24} alkyl, C_5 - C_{12} cycloalkyl, C_2 - C_{24} alkenyl, C_6 - C_{24} aryl, C_7 - C_{25} aralkyl, or A_5 - A_{18} heteroaryl, and with particular preference are C_6 - C_{12} aryl, C_6 - C_{12} aralkyl or A_5 - A_8 heteroaryl, or dependently on one another are hydrogen,

and X_2 is a compound of the formula (X)

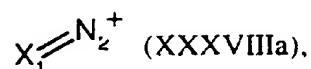


in which

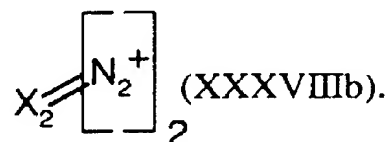
R₄₂ and R₄₄ independently of one another are substituted or unsubstituted C₁-C₂₄alkyl, C₅-C₁₂cycloalkyl, C₂-C₂₄alkenyl, C₆-C₂₄aryl, C₆-C₂₅aralkyl, or A₅-A₁₈heteroaryl, and with particular preference are C₆-C₁₂aryl, C₇-C₁₂aralkyl or A₅-A₈heteroaryl, or dependently on one another are hydrogen, and

R₄₃ is C₆-C₂₄arylene, A₅-A₁₈heteroarylene, C₅-C₁₂cycloalkylene or bi(C₆-C₂₄)arylene, bi(A₅-A₁₈)heteroarylene, in which the bi compounds are connected to one another by a direct bond or by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR₄₃R₄₄-, -CO-, -COO-, -OCO-, -NR₄₃CO-, -CONR₄₃-, -O-, -S-, -SO-, -SO₂- or -NR₄₄-, or are C₂-C₂₄alkenylene, which may be interrupted one or more times by -CH=N-, -N=N-, -CR₄₃R₄₄-, -CO-, -COO-, -OCO-, -NR₄₃CO-, -CONR₄₃-, -O-, -S-, -SO-, -SO₂- or -NR₄₄- units,

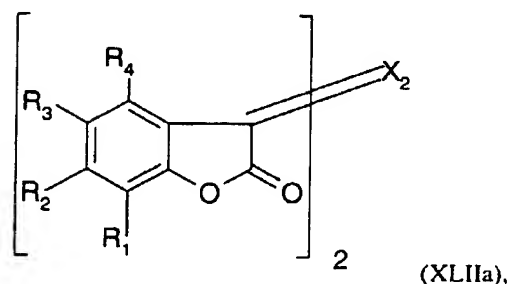
by coupling diazotized amines with coupling components in an aqueous medium, which comprises reacting benzofuran-2-one (XXXa) of claim 4 with a diazonium salt of the formula (XXXVIIIa)



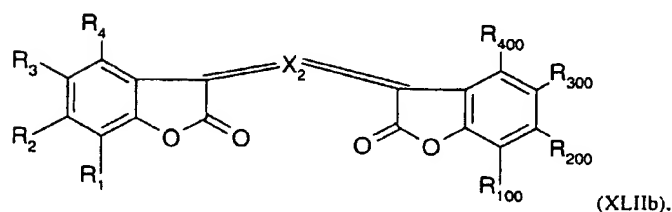
of benzofuran-2-one (XXXa), or (XXXa) and (XXXb) of claim 5, with a diazonium salt of the formula (XXXVIIIb)



12. A composition comprising 2 to 10, preferably 2 or 3, compounds of the formulae (Ia), (Ib) and/or (Ic) according to claim 1, and/or (XLIa) and/or (XLIb) according to claim 8 and/or dimeric benzofuran-2-ones of the formulae (XLIIa) and/or (XLIIb)



or



X_2 is (C_6-C_{24}) arylene, (A_5-A_{18}) heteroarylene or polymethylenide, polyether, polyimine, polyamine, or is $bi(C_6-C_{24})$ arylene or $bi(A_5-A_{18})$ heteroarylene which are connected to one another directly or via $-C-$, $-N-$, $-O-$ or a $(-N=N-)$ unit.

13. A composition of matter comprising a high molecular mass organic material and at least one compound of the formulae (Ia), (Ib), (Ic) according to claim 1, (XLIIa), (XLIIb) according to claim 12, (XLIa) or (XLIb) according to claim 8 or a composition comprising compounds of the formulae (Ia), (Ib), (Ic), (XLIIa), (XLIIb), (XLIa) or (XLIb) according to claim 12 in a colouring effective amount.
14. Use of the compounds according to claim 1 and of the compositions according to claim 12, and of the compositions of matter according to claim 13, for preparing inks or for paints, printing inks, mineral oils, lubricating greases or waxes, or coloured or pigmented plastics, non-impact-printing material or toners.